Maryland Historical Trust

Maryland Inventory of Historic Properties Number: AA 212

Name: MD 179 over Mill Cr. (#2052)

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST

Eligibility Recommended _____ Eligibility Not Recommended ___X___

Criteria: ____A ____B ____C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments: _____

Reviewer, OPS: __Anne E. Bruder_____ Date: __3 April 2001_____

Reviewer, NR Program: _Peter E. Kurtze_____ Date: ___3 April 2001_____

MARYLAND INVENTORY OF HISTORIC PROPERTIES **MHT NO. AA-2121**
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST

NAME AND SHA NO.: 2052

LOCATION

Road Name and Number: MD 179 over Mill Creek
City/Town: St. Margaret's (Annapolis) X vicinity
County: Anne Arundel

Ownership: X State _ County _ Municipal _ Other

Bridge projects over: _ Road _ Railway X Water _ Land

Is bridge located within designated district?: _ yes X no
___ NR listed district _ NR determined eligible district
___ locally designated _ other
Name of District _

BRIDGE TYPE

__ Timber Bridge
__ Beam Bridge __ Truss-Covered __ Trestle __ Timber-and-Concrete

__ Stone Arch Bridge

__ Metal Truss Bridge

__ Moveable Bridge
__ Swing __ Bascule Single Leaf __ Bascule Multiple Leaf
__ Vertical Lift __ Retractile __ Pontoon

__ Metal Girder
__ Rolled Girder __ Rolled Girder Concrete Encased
__ Plate Girder __ Plate Girder Concrete Encased

__ Metal Suspension

__ Metal Arch

__ Metal Cantilever

X Concrete
_ Concrete Arch _ Concrete Slab X Concrete Beam _ Rigid Frame
_ Other Type Name ___

DESCRIPTION

Describe the Setting:

Bridge #2052 carries MD 179 over Mill Creek near St. Margaret's in Anne Arundel County. This area is located within Maryland's Tidewater or Coastal Plain physiographic region. MD 179 runs in a generally southwest to northeast direction at this location. Mill Creek runs in a roughly south-north direction. Situated in a relatively undeveloped area, this bridge is surrounded by wooded land and several residences.

Describe the Superstructure and Substructure:
(Discuss points identified in Context Addendum, Section C)

Bridge #2052 was built in 1920. The structure carries two lanes of traffic north and south on MD 179 over Mill Creek and consists of two 32' +/- continuous concrete girder spans supported by two concrete abutments with concrete wingwalls and one concrete pier on timber piles. The superstructure consists of four concrete girders with a concrete slab and bituminous overlay. The structure width is comprised of a 24' +/- clear roadway, consisting of two 11'-0" lanes and two 1'-0" shoulders, and two 1' parapets. The roadway slab measures 7-1/2" +/- with a 7" wearing surface. The total length of the bridge measures 64'.

An inspection report from 1931 noted that the east abutment was cracked and braced with timber. Reports from 1970 and 1974 noted spalling on the girders; reports from 1977 indicated a cracked abutment as well as spalling on exterior beams and balustrades. The 1980 inspection report noted random cracks and disintegration in the backwalls and wings at both abutments as well as spalls and disintegration on the outside surfaces of the parapets.

A survey of historic concrete beam bridges undertaken by the Maryland State Highway Administration in the Fall of 1995 identified 113 bridges of that type located throughout the state. Nearly one-quarter (26) of that total were double-span bridges; 37 bridges (33%) were multiple span.

Discuss major alterations:

Due to excessive deterioration, concrete Jersey-type barriers replaced the original parapets in 1991. The bridge was closed to traffic during repairs. The newer Jersey-type parapets were placed between the front of the original parapet's location and the white line that indicated the edge of the roadway. A crack in one of the abutments was repaired with an injection of epoxy.

HISTORY

When Built: 1920
Why Built: Statewide road improvement programs and local transportation needs
Who Built: State Roads Commission, contract #AA 473
Who Designed: Unknown, design based on standard SRC specifications
Why Altered: The bridge was altered in order to replace the original deteriorated parapets with newer Jersey-type barriers. Other alterations such as the repairs to the cracked abutment were also undertaken to correct damage caused by deterioration.
Was this bridge built as part of an organized bridge building campaign?: No

SURVEYOR ANALYSIS

This bridge may have NR significance for association with:

_ A (Events) _ B (Person) _ C (Engineering/Architectural Character)

Was this bridge constructed in response to significant events in Maryland or local history?

Road improvements in Anne Arundel County were fueled by several events occurring during the early twentieth century. First, the Good Roads Movement, which began in the last decade of the nineteenth century, aimed to improve primary roads throughout the state as well as multiple connecting roads between counties. As the movement progressed, numerous existing roads were widened, straightened, or graded, and many new bridges were built to carry the rebuilt roads. Second, rapidly increasing automobile, truck, and bus traffic also fueled the replacement of existing narrow and weak bridges with wider and stronger concrete structures, many of which were built according to standardized specifications and plans developed by the State Roads Commission (SRC). Third, the State Roads Commission established district engineering offices during the 1910s to aid in intrastate road development, and established a separate bridge department in 1920. This fostered construction of many concrete bridges throughout the state. In the 1920s, the SRC emphasized improving the safety and comfort of primary routes while developing secondary networks and feeder roads. By the 1930s, bridges that were originally deemed adequate had become unacceptable for carrying modern traffic loads and many new structures were built as a result.

When the bridge was built, and/or given a major alteration, did it have a significant impact on the growth and development of the area?

Bridge #2052 participated in the general trend toward upgrading state roads and bridges and improving intrastate access.

Is the bridge located in an area which may be eligible for historic designation, and would the bridge add or detract from the historic and visual character of the possible district?

No, the bridge is not located in an area which is eligible for historic designation.

Is the bridge a significant example of its type?

No, the bridge is not a significant example of its type. Repairs to the original parapets have compromised the integrity of the original structure.

Does the bridge retain integrity of the important elements described in the Context Addendum?

No, the bridge does not retain integrity of the primary character defining elements of a concrete beam bridge. The character-defining elements for the superstructures of concrete beam bridges are the slab, the longitudinal beams, and the parapet or railing when integral. For the substructure, the character-defining elements are the abutments, piers, and wing walls. The original concrete parapet walls have been replaced by modern Jersey-type barriers. A cracked abutment was also repaired.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer, and why?

No, this structure is not a significant example of the work of the State Roads Commission.

Should this bridge be given further study before significance analysis is made, and why?

No, this structure should not be given further study. Previous alterations place its integrity in doubt.

BIBLIOGRAPHY

Spero, P.A. C. & Company and Louis Berger & Associates
1994 *Historic Bridges in Maryland: Historic Context Report.* Maryland State Highway Administration, Baltimore.

State Highway Administration
Bridge Inspection Reports. On file 707 North Calvert Street, Baltimore.

As-Built Drawings. On file 707 North Calvert Street, Baltimore.

State Roads Commission of Maryland
1958 *A History of Road Building in Maryland.* Baltimore.

SURVEYOR INFORMATION

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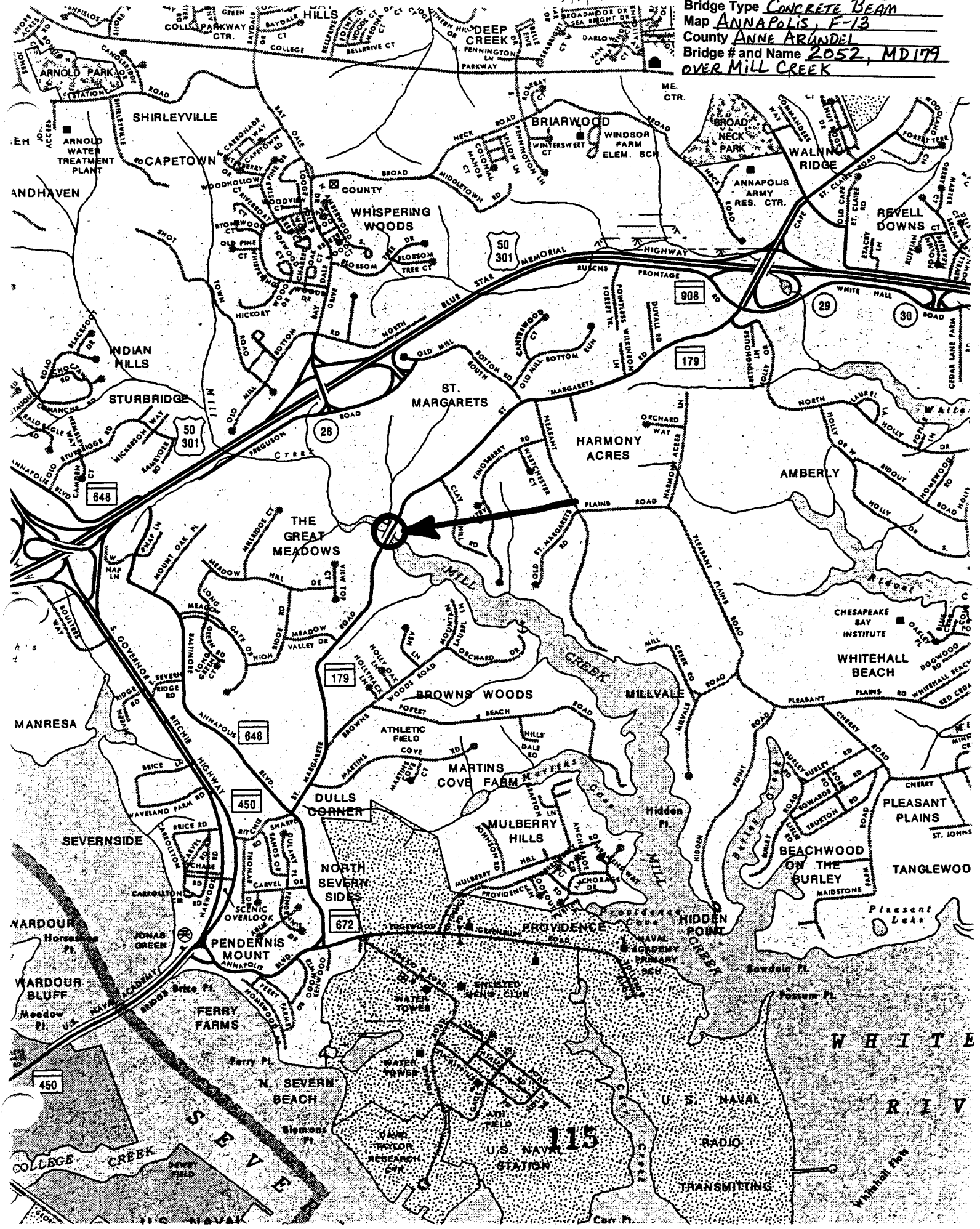
AA-2121

Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAM
Map ANNAPOLIS, F-13
County ANNE ARUNDEL
Bridge # and Name 2052, MD 179
OVER MILL CREEK



Inventory # AA-2121

Name 2052-MD 179 OVER MILL CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description EAST ELEVATION

Number ~~4 of 18~~ 1 of 4

Inventory # AA-2121

Name 2052-MD 179 OVER MILL CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description NORTH APPROACH LOOKING SOUTH

Number ~~5 of 18~~ 2 of 4

Inventory # AA-2121

Name 2052-MD 179 OVER MILL CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description SOUTH APPROACH LOOKING NORTH

Number ~~6 of 18~~ 3 of 4

Inventory # AA-2121

Name 2052-MD 179 OVER MILL CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description WEST ELEVATION

Number ~~7 of 18~~ 4 of 4